

WHAT IS CLAIMED IS:

1. A data communication method, for nodes
connected via a communication control bus along which
transmission of a mixture of control signals and data
5 is enabled, comprising the steps of:

inhibiting entry of predetermined instructions at
an instruction entry unit of a first node during a data
transfer from said first node to a second node; and

providing a predetermined message for a user, on a
10 display unit at said first node.

2. A data communication method according to claim
1, further comprising a step of displaying an alarm
message on said display unit at said first node upon
15 entry of one of said predetermined instructions at said
instruction entry unit during said data transfer.

3. A data communication method according to claim
1, wherein said first node is an image data supply
20 source and said second node is a printer for receiving
and printing image data.

4. A data communication method according to claim
1, wherein said communication control bus includes an
25 IEEE 1394 serial bus.

5. A data communication method according to claim

1, further comprising:

a designation step of designating data to be transmitted from said second node to said first node; and

5 a search step of searching for said data designated at said designation step and of transmitting said designated data from said first node to said second node.

10 6. A data communication method, for directly exchanging data by a first node and a second node, which are connected via a communication control bus along which transmission of a mixture of control signals and data is enabled, said data communication
15 method comprising:

a request step of requesting transmission of data from said second node to said first node;

a search step of, in response to said request from said second node at said request step, searching for
20 corresponding data in said first node;

a transmission step of transmitting data obtained at said search step to said second node; and

a display step, during data transmission at said transmission step, of inhibiting entry of predetermined
25 instructions at said first node and of displaying a predetermined message for a user.

7. A data communication method according to claim 6, further comprising a step of displaying an alarm message at said first node upon entry of one of said predetermined instructions at said first node during said data transmission.

8. A data communication apparatus, which is connected to a network via a communication control bus along which transmission of a mixture of control signals and data is enabled, comprising:

instruction entry means manipulated by a user when entering an instruction;

reception means for receiving a command from a first node via said communication control bus;

transmission means for transmitting, to said first node, data corresponding to a command received by said reception means; and

control means for inhibiting, during transmission of data by said transmission means, entry of predetermined instructions at said instruction entry means, and for displaying a predetermined message for said user.

9. A data communication apparatus according to claim 8, further comprising alarm means for displaying an alarm message upon entry of one of said predetermined instructions, entry of which is inhibited

during said data transmission.

10. A data communication apparatus according to claim 8, wherein, upon receipt of a data output end
5 signal from said first node, said control means removes inhibitions on entry of said predetermined instructions.

11. A data communication apparatus according to
10 claim 8, wherein said first node is a printer and said communication control bus is an IEEE 1394 serial bus.

12. A data communication apparatus according to claim 8, which concerns an image data supply source,
15 wherein said command received by said reception means includes information for specifying said image data.

13. A data communication system, which includes a first and a second node connected via a communication
20 control bus, along which transmission of a mixture of control signals and data is enabled, so that data are directly exchanged by said first and said second node, said first node including:

instruction entry means manipulated by a user to
25 enter an instruction,

transmission means for transmitting pertinent data in response to a data request from said second node,

and

control means for, during transmission of data by
said transmission means, inhibiting entry of
predetermined instructions by said instruction entry
5 means and for providing a predetermined display for
said user; and
said second node including:

request means for transmitting a request to said
first node for supply of data, and

10 output means for receiving data from said first
node transmitted in response to said request by said
requesting means, and for outputting said data.

14. A data communication system according to
15 claim 13, wherein said first node further includes
display means for displaying an alarm message upon
entry of one of said predetermined instructions, entry
of which is inhibited, at said instruction entry means
during said data transmission.

20

15. A data communication system according to
claim 13, wherein said communication control bus
includes an IEEE 1394 serial bus.

25

16. A data communication system according to
claim 13, wherein said first node is an image data
supply source and said second node is a printer.

17. A storage medium, on which is stored a program for executing a data communication method for nodes connected via a communication control bus, along which transmission of a mixture of control signals and data is enabled, said program comprising:

a program module for inhibiting entry of predetermined instructions at an instruction entry unit of a first node during a data transfer from said first node to a second node, and for providing for a user a predetermined message on a display unit of said first node.

18. A storage medium, on which is stored a program for executing a data communication method whereby data are exchanged directly by a first node and a second node, which are connected via a communication control bus along which transmission of a mixture of control signals and data is enabled, said program comprising:

a request module for requesting transmission of data from said second node to said first node;

a search module for, in response to said request for said second node issued by said request module, searching for corresponding data in said first node;

a transmission module for transmitting data obtained by said search module to said second node; and

a display module for, during transmission of data

at said transmission step, inhibiting entry of predetermined instructions at said first node and for displaying a predetermined message for a user.

5 19. A data communication system comprising:

 a first node having an image display monitor and an operating unit;

 a second node having an operating unit but no image display monitor, said first and said second nodes
10 communicating with each other by DS-Link; and

 arbitration means for providing an arbitration for an instruction entered at said operating unit of said first node and an instruction entered at said operating unit of said second node.

15

 20. A data communication system according to claim 19, wherein said arbitration means gives a higher priority to an operation for said first node than to an operation for said second node.

20

 21. A data communication system according to claim 19, wherein said arbitration means gives a higher priority to an operation for said second node than to an operation for said first node.

25

 22. A data communication system according to claim 19, wherein said first node and said second node

are connected together by a serial bus.

23. A data communication system according to
claim 19, wherein said serial bus conforms to the 1394
5 standard.

24. A data communication system according to
claim 19, wherein said second node is a printer.

10 25. A data communication system according to
claim 24, wherein said arbitration means invalidates a
manipulation of an operating unit at said printer while
printing is being performed by said printer.

15 26. A printing system comprising:
a video apparatus having an image display monitor
and an operating unit;
a printer having an operating unit; and
arbitration means for providing an arbitration for
20 an instruction entered at said operating unit of said
video apparatus and an instruction entered at said
operating unit of said printer.

27. A printing system according to claim 26,
25 wherein said video apparatus transmits video data
isochronously, and receives operating state information
for said printer asynchronously.

28. A printing system according to claim 26, wherein said operating state information for said printer is displayed on said image display monitor.

5 29. Data communication apparatuses constituting a first node and a second node in said data communication system.